

APRIL/MAY 2024

**FMB11/CMB11 — FUNDAMENTALS OF
MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Microbiology
2. Biogenesis
3. Negative staining
4. Resolving power
5. Eukaryotes
6. Binomial Nomenclature
7. Fimbrial
8. Endospore
9. Sterilization
10. Antifungal agents



SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL the questions.

11. (a) Comment on scope of microbiology.

Or

- (b) Give a brief account on theory of Spontaneous generation.

12. (a) Write about the principle, method of operation and applications of phase contrast microscope.

Or

- (b) Write an account on spore staining and Flagella staining.

13. (a) Write a short note on Five Kingdom classification of microorganisms.

Or

- (b) How viruses are classified? Explain it.

14. (a) Differentiate between cell wall of gram positive and gram negative.

Or

- (b) What are intracellular organelles? Explain it.

15. (a) List out the various antibacterial and antiviral agents with their mechanism of action.

Or

- (b) Write an account on Physical method of sterilization.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Write about the contributions of Louis Pasteur, Robert Koch, Winogradsky and Alexander Fleming towards microbiology.

17. Discuss the principle, method of operation and applications of fluorescence microscope.

18. Write down the classification outline of fungi and protozoa.

19. Define Flagella. Draw the structure of a flagella and explain it. Add a note on types of flagella with an example each.

20. Write an essay on chemical methods of sterilization.

